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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,220	03/30/2004	Mark A. Wildman	D5531	3857
30409	7590	03/27/2006	EXAMINER	
INTERNATIONAL ENGINE INTELLECTUAL PROPERTY COMPANY			MCCALL, ERIC SCOTT	
4201 WINFIELD ROAD			ART UNIT	
P.O. BOX 1488			PAPER NUMBER	
WARRENVILLE, IL 60555			2855	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/813,220

Applicant(s)

WILDMAN, MARK A.

Examiner

Eric S. McCall

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan. 17, 2006 (C.O.M. dated Jan 11, 2006).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-24 and 31-33 is/are rejected.
- 7) ☒ Claim(s) 25-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FUEL INJECTOR TESTING SYSTEM

FINAL OFFICE ACTION

In response to the Applicant's amendment with a C.O.M. date of Jan. 11, 2006.

NONELECTED CLAIMS

This application contains claims 1-18 which are drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

DRAWINGS

Based on the Applicant's amendments, the objection to the drawings as set forth in the previous office action (Oct. 18, 2005) has been overcome.

CLAIMS

35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19, 21, 32, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Fegel (3,874,225).

With respect to amended independent claims 19 and 32, Fegel suggests a method for testing a fuel injector, comprising the steps of:

mechanically isolating at least one test volume of the fuel injector that is disposed within a sleeve (22);

changing the amount of air in the at least one test volume; and

testing the at least one test volume for air leakage (col. 3, lines 55-68).

With respect to claim 33, Fegel clearly suggests the claimed subject matter thereof (see Fig. 1 and col. 3, lines 55+).

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 22-24, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fegel (3,874,225).

With respect to claim 20, Fegel teaches one sealably engaging O-ring (40) but fails to teach at least two such O-rings as claimed.

Nonetheless, it would have been obvious to one having ordinary skill in the art armed with said teaching to use at least two sealably engaging O-rings.

The motivation being that by using more than one O-ring between the fuel injector and the sleeve a better seal between the two will be obtained and reduces the likelihood of a leakage.

With respect to claims 22-24, Fegel fails to teach such specific pressure levels or time periods as claimed but such levels and periods would have been obvious to one having ordinary skill in the art because the claimed levels and periods are typical operating ranges for such a device.

With respect to claim 31, Fegel fails to explicitly teach the fuel injector being a hydraulically activated electronically controlled unit as claimed.

However, it would have been obvious to one having ordinary skill in the art armed with said teaching to use such a fuel injector as the prior art's fuel injector.

The motivation being that a hydraulically activated electronically controlled fuel injector is a very well known and commonly used fuel injector in the art as being a fuel injector used in a diesel engine.

Response to Arguments

In response to the Applicant's arguments pertaining to independent claims 19 and 32, the Examiner's interpretation of the claims differs from the Applicant's interpretation. Unlike the Applicant's, the Examiner interpretation of the claims does not require a fuel injector per se to be present but instead only the "test volume" of the fuel injector, for according to the body of the claims, it is the test volume that is being tested. Furthermore, the test volume is not required to be within the fuel injector.

As such, Fegel does teach a test volume of a fuel injector to be present. The volume within the sleeve (22) is deemed to be a test volume of a fuel injector because although a pressure tester (30 which is an injector in of itself) is used to test the volume, the sleeve and the volume therein remains when the tester is removed and replaced with the actual fuel injector.

Evidence to this is the fact that the title of the Fegel teaching is directed to testing a sleeve of a fuel injector.

In addition, the pressure tester (30) of Fegel is deemed as being an injector. Although the injector is explicitly set forth as injecting compressed air, one could argue that the pressure tester is capable of injecting fuel as claimed since the injection of fuel is merely an intended use of the injector and the word "fuel" has a broad meaning.

Allowable Subject Matter

Amended claims 25-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CONCLUSION

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric S. McCall whose telephone number is (571) 272-2183.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric S. McCall
Primary Examiner
Art Unit 2855
March 20, 2006